

A NOTE ON ASCODIPTERON.

(Diptera.)

PLATE XIII.

BY NATHAN BANKS.

Recently Dr. Lyons, of the Department of Mammalogy of the U. S. National Museum, while examining Bornean bats of the genus *Emballonura*, came across some peculiar swellings on the body, which he concluded were insects, and brought them to the Section of Insects. These somewhat pear-shaped bodies were in a cavity of the skin of the bat, with the anal end of the body extruded. An examination of these specimens disclosed a head and thorax of very peculiar appearance, retracted within the sac-like body.

A survey of the literature showed that they belonged to the genus *Ascodipteron*, described in 1896 by Adensamer. The structure of the sternum places these forms as belonging to the Streblidæ. Now we learn that Muir has bred them and found that the winged specimens, male and female, are Streblidæ. He says that the female after mating breaks off her wings and legs and burrows into the skin of the bat, leaving only the anal end extruded. This agrees with what we have found—all six legs present, but of only two joints, the second with a black apical scar where the rest of leg was broken off. Monticelli in his figures shows the stumps of the wings, but did not recognize them. Monticelli's family Ascodipteridæ is thus a synonym of the Streblidæ.

There are now at least six lots of these creatures known. The one specimen upon which Adensamer formed the genus, from a *Phyllorhina* from Java; the Monticelli specimens from *Rhinolophus* from Abyssinia, *Asc. lophotus*; the two species described by Speiser, one from Siam, the other from Madagascar; the Muir specimens, upon which he has worked out the life history; and finally those taken on *Emballonura* from Borneo, shown here.

The winged Streblidæ are very rare; they have been taken in several cases from the same bats that harbor the *Ascodipteron*. It is therefore probable that *Ascodipteron* is but a stage in the life-history of most, if not all, Streblidæ, and that our form and Adensamer's species belong to *Nycteribosca*.

The species so beautifully figured by Monticelli is very different from that of Adensamer and the one shown here. The body is much more slender; the tip of the abdomen has the spiracles arranged differently; the mouth-armature is different, and the mesosternal sclerites are quite differently shaped, so

that I doubt if *A. lophotes* will belong to *Nycteribosca*, but rather to the genus *Raymondia*.

I have made some drawings of these specimens from *Emballonura*, and wish to call attention especially to the furcate tip of the antennal arista, and the spines on the tip of the body, and to the chitin rings near the posterior spiracles; these rings bear bristles. These characters figured will serve to distinguish this species from those already known, so I propose to call this species *Ascodipteron emballonuræ*, although I suspect that when its life-history is known it will be shown to be the same as some species of Streblidæ already described from Insulinde.

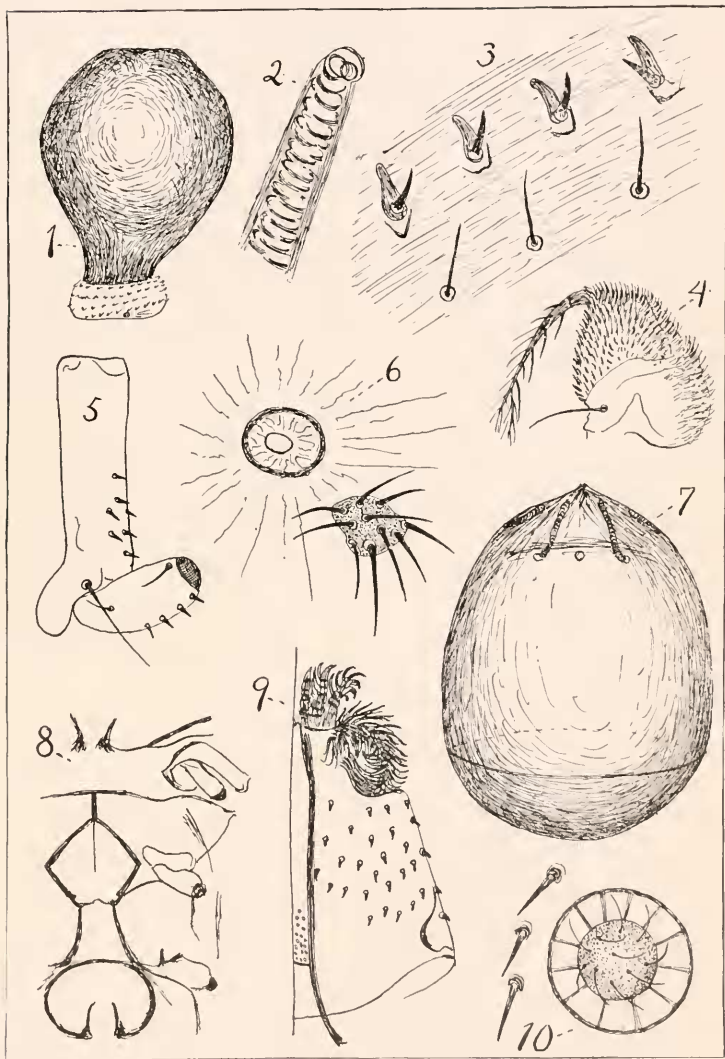
References to the various articles on this peculiar fly are as follows:

- ADENSAMER, Th. Ueber *Ascodipteron phyllorhinæ*, eine eigenthümliche Pupiparenform. Sitzungsber. Kais. Akad. Wiss. Wien.; Math.-naturw. Cl., Bd. 105, pp. 400-416, 1896.
- MONTICELLI, P. S. Di un'altra specie del genere *Ascodipteron*, parassita del *Rhinolophus clivosus* Rüpp. Ricerche Laborat. Anat. R. Univ. Roma, vol. VI, pp. 201-230, 1898. (*A. lophotes*.)
- SPEISER, P. Diptera pupipara. Fascic. Malay Zoolog., I, p. 125, 1903. (Describes *A. siamense*.)
- . Diptera pupipara. Voelzkow, Reise Ostafrika, Bd. 2, p. 202, 1908. (Describes *A. labulatum*.)
- BARBOUR, T. A note regarding the life history of *Ascodipteron*. Psyche, 1910, p. 168. (Brief summary of Muir's discovery of the life history.)

EXPLANATION OF PLATE XIII.

Ascodipteron emballonuræ Banks.

- FIG. 1. Side view of the fly.
2. Spiracle of pupa.
 3. Armature of skin on anal end of body.
 4. Antenna.
 5. Basal part of leg.
 6. Posterior spiracle and chitin ring.
 7. Puparium.
 8. Mesosternum and metasternum.
 9. One half of head from above.
 10. Spiracle on thorax.



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